

Model **AW** series

Silicon wafer with thermocouple



Temperature measurement of silicon wafers in etching equipment

蚀刻设备晶圆温度分布检测

AW系列产品为直接将热电偶镶嵌于晶圆表面的温度传感器。
可为客户设计特制品，热电偶点数和位置等可任意指定。

"Silicon wafer with thermocouple" indispensable for developing semiconductor manufacturing equipment, setting process conditions, and measuring temperature distribution.

Features 特点

- High-precision heat contact position is ensured by performing precision hole processing on the wafer.
高精度加工确保感温点位置准确。
- A test report is attached to all products as a standard accessory. Realization of highly accurate temperature measurement is possible.
产品附属校正成绩书。
- Wafer size, thermocouple sensing point, insulation coating can be customize.
晶圆尺寸，热电偶点数，绝缘线等可自由选择。
- We also manufacture special order products.
可为客户设计特制品。

Typical of AW series 典型产品



Model **AW-0505K-A-TS1-ANP**

- Wafer size : 5 inch
- Sensor points : 5 points
- Thermocouple type : Type K
- Insulation coating : Alumina fiber sleeve
- Cable length : 1 m
- Plug : ANP (miniature plug)

This is a type in which five thermocouple sensors coated with alumina fiber sleeves are attached to a 5-inch wafer. The alumina fiber sleeve used to coat the thermocouple sensor is flexible and lightweight, making it easy to handle.

5寸晶圆上5个热电偶感温点。绝缘线种类为氧化铝纤维。



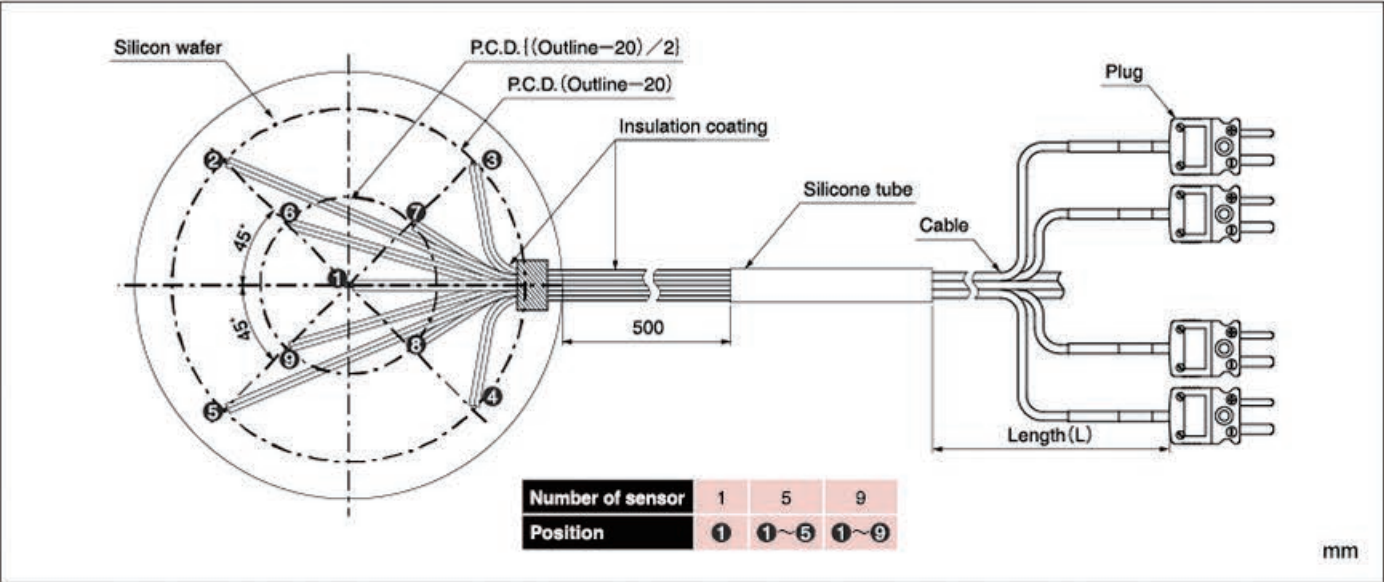
Model **AW-0505K-S-TS1-ANP**

- Wafer size : 5 inch
- Sensor points : 5 points
- Thermocouple type : Type K
- Insulation coating : Quartz tube
- Cable length : 1 m
- Plug : ANP (miniature plug)

This type has 5 thermocouple sensors attached to a 5-inch wafer through a quartz tube. The quartz tube used for the coating of the thermocouple sensor is less dusty and less outgassed than the alumina fiber sleeve, so it is suitable for use in applications that are sensitive to the effects of impurities.

5寸晶圆上5个热电偶感温点。绝缘线种类为石英管。低粉尘，产生气体少，适用于对环境污染条件严格的环境。

Standard product dimensional drawing 标准品尺寸图



How to order of AW series 选型

AW-0505K-A-TS1-ANP

① Wafer size 晶圆尺寸	05 : 5 inches 08 : 8 inches 12 : 12 inches
② Sensing point 热电偶点数	01 : 1 point 05 : 5 points 09 : 9 points
③ Insulation coating 热电偶线种类	T : Fluororesin A : Alumina fiber sleeve S : Quartz tube
④ Cable type and length 导线种类和长度 (See page 9)	TS1 Standard specifications : 1m The cable length can be specified each 0.5m.
⑤ Plug 插头 (See page 8)	ANP (For AM-9***, HR-1*5*, AP-450) W (Without plug) WT3 (General material Y terminal for M3) ANJY3 (Thermocouple Y terminal for M3)

Model number ^{※1}		AW-****K-T	AW-****K-A	AW-****K-S
Thermocouple type		Type K		
Temp. range ^{※2}		0~260℃	0~500℃	0~500℃
Tolerance	0℃ ≤ t ≤ 100℃	±2.5℃	±2.5℃	±2.5℃
	100℃ < t ≤ 200℃	±2.5℃	±5.0℃	±5.0℃
	200℃ < t ≤ 300℃	±2.5℃ (~260℃)	±6.0℃	±6.0℃
	300℃ < t ≤ 400℃	—	±7.0℃	±7.0℃
	400℃ < t ≤ 500℃	—	±8.0℃	±8.0℃
Test point of report		100, 150, 200, 250℃	100, 200, 300, 400, 490℃	100, 200, 300, 400, 490℃
Wafer size		5, 8, 12 inches		
Wire diameter		φ0.13mm		
Insulation coating		Fluororesin	Alumina fiber sleeve	Quartz tube

※1 The * in the model name contains a number that can be selected for the model name. The model name after the insulating coating is omitted.

※2 Please note that the operating temperature limit is the operating temperature limit for the wafer and insulation coating, and does not apply to anything else.

Production of custom-made products

The AW series can also be manufactured with the following custom specifications. Please feel free to contact us.

- Hot junction position : Any position 10mm or more inside from the outer circumference of the wafer.
- Sensor points : Points other than 1, 5, and 9 are also possible.
- Wafer material : Si, SiC, glass, etc. (supplied items)
- Wafer shape : 2 to 12 inches, □ 10 to 200mm. (supplied item)
- The L dimension of the coating material (Fluororesin, alumina, quartz) can be specified up to MAX. 2000mm.
- Can be manufactured using supplied wafers.
- Polyimide flat sheet for vacuum seal.